IN THE SPECIFICATION:

(1) The paragraph from page 4, line 30 to page 5, line 2 has been amended as follows:

Accordingly, it is desired that some means be provided to a navigation system to prevent the blank scroll so that the user feels at ease and can maintain the safe driving. Namely, there is a need in a navigation system, when there is no visible ~~artifacts~~ objects in the display range in the scroll direction, that the navigation system is able to detect a visible ~~artifact~~ object in the scroll direction, and quickly move to the screen where the visible ~~artifact~~ object is shown.

(2) The paragraph from page 9, line 32 to page 10, line 8 has been amended as follows:

When a display screen is scrolled on an area where there is no visible object, the display method of the present invention prevents the blank scroll by detecting such a condition and rapidly moving to the screen in the scroll direction where a visible object exists. For example, if the user uses a scroll key when the map image on the current screen is a desert, a lake, a prairie, etc., the navigation system detects that there is no visible object in the direction of the scroll for a while, and calculates a predicted location where a visible object will be seen. Then, the navigation system jumps to the predicted location of the scroll to display the visible object on the screen.

(3) The paragraph from page 13, line 14 to page 13, line 28 has been amended as follows:

When a visible object is found in the scroll direction, the scroll operation controller 47 further examines whether any part of the visible object will be within the display range when the screen 21 is continuously ~~scroll~~ scrolled in the scroll direction. As will be described with reference to Figures 7-10, such determination is made by evaluating the angles involved with a shape point of the visible object. During such evaluation, the map data will be temporarily stored in the buffer memory 48 or in the map memory 34. If it is determined that any part of the visible object should come within the display range in the scroll direction, the scroll operation controller 47 causes the monitor 50 to display ~~to~~ the location where the visible object will be displayed. In other words, the map image on the screen 21 jumps to the new location that shows the visible object.

(4) The paragraph from page 15, line 1 to page 15, line 8 has been amended as follows:

~~In~~ Figure 7 shows an example of illustration to determine whether an object in the scroll direction should be in the display range if the scroll operation by the user is continued. This illustration corresponds to the map image of Figure 4 where there is a pond 23 far ahead in the scroll direction. The navigation system determines whether the pond

23 should be within the display range if the user keeps scrolling the screen in the same scroll direction.

(5) The paragraph from page 16, line 3 to page 16, line 11 has been amended as follows:

In the example of Figure 7, the pond 23 has a shape point P that defines its shape. Although only one shape point P is shown in Figure 7, the pond 23 has a large number of shape points, and the evaluation will also be made on the other shape points as will be explained in detail. The number of shape points that a visible object has ~~depend~~ depends on the size and shape of the visible object. Some visible object may have only a few shape points and others may have several hundreds of shape points.

(6) The paragraph from page 17, line 21 to page 17, line 34 has been amended as follows:

Figures 9 and 10 schematically show the situation where the pond 23 is not in the display range of the scroll direction, i.e., not a visible object. The navigation system checks to see whether the conditions noted above, i.e., "$\alpha>\theta$ and $\beta>\theta$" or ~~"$\alpha<\theta$ and $\beta<$ "~~ "$\alpha<\theta$ and $\beta<\theta$"are satisfied for the shape point P on the pond 23. The navigation system can check this condition for all of the shape points of the object (pond 23). However, preferably, the navigation system selects the shape point which is closest to the display range by checking the latitude and longitude of the shape point and applies the

above condition. If the closest shape point is not within the display range, the navigation system determines that all the other shape points are not in the display range, thereby increasing the processing speed.

(7) The paragraph from page 18, line 1 to page 18, line 12 has been amended as follows:

In Figure 9, because both angles $\alpha$ and $\beta$ are smaller than the angle $\theta$, the navigation system determines that the shape point P of the pond 23 is not within the display range. Similarly, in Figure 10, because both angles $\alpha$ and $\beta$ are larger than the angle $\theta$, the navigation system determines that the shape point P of the pond 23 is not within the display range. Thus, in either case of Figure 9 or 10, the navigation system determines that the pond 23 is not the object to be displayed. Then, the navigation system will read the map data further ahead of the scroll direction to find other visible ~~artifacts~~ objects and repeat the procedure described above for visible ~~artifacts~~ objects.

(8) The paragraph from page 18, line 13 to page 18, line 23 has been amended as follows:

Although the present invention has been described above using the schematic views shown in Figures 7 to 10, in an actual implementation, the display screen of the ~~navigator~~ navigation system is comprised ~~up~~ of a large number of dots in a matrix manner. Thus, as shown in Figure 11, the lines in

the user's scroll direction may not be completely straight. In Figure 11, a zigzag line 101 is approximated to the line 75 starting from the point A, and a zigzag line 102 is approximated to the line 77 starting from the point B. Although each dot 100 shown in Figure 11 is large, in the actual display, each dot 100 is much smaller that may not be discernible to the user.

(9) The paragraph from page 19, line 6 to page 19, line 17 has been amended as follows:

If the shape point is visible, at step 206, the navigation system will register the point P's at step 207. The point P' is a crossing point of the line 73 and the line drawn in perpendicular to the line 73 from the shape point <u>as shown in Figures 7-10</u>. The navigation system will then check other shape points in step 208. In the case where the shape point is determined to be not visible in step 205, the navigation system will skip the step 207 and check other shape points of the visible object in the step 208. After checking the shape points, the navigation system moves the screen 21 to the location of the crossing point P' that is nearest to the view window center in step 209.